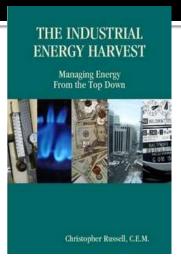


Making the Business Case: SEVEN ENERGY FACTS That All Business Leaders Should Know

www.energypathfinder.com (443) 636-7746 crussell@energypathfinder.com

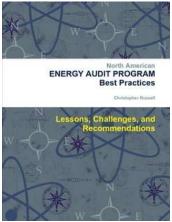
About Christopher Russell, C.E.M., C.R.M.

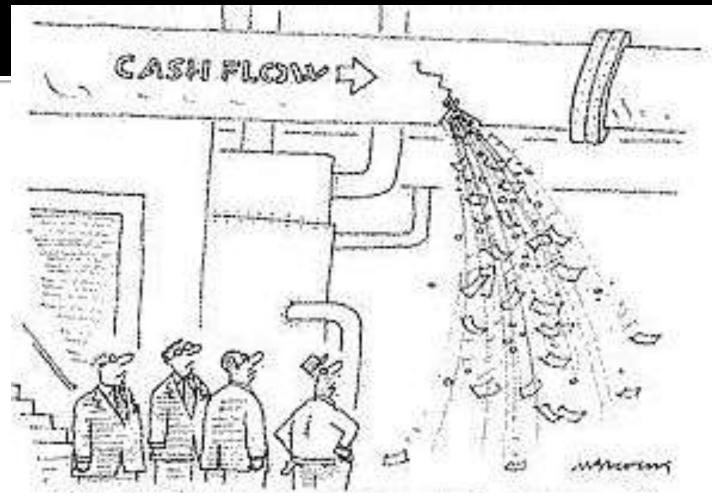
- Independent consulting since 2006 Principal, Energy Pathfinder
- Visiting Fellow, American Council for an Energy Efficient Economy, 2012+
- Energy Manager, Howard County, MD, 2010-2012
- Director of Industrial Programs,
 Alliance to Save Energy, 1999-2006
- Comm. & Indus. Program Manager, American Gas Association, 1995-1999
- MBA, M.A., University of MD;
 B.A., McGill University



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"Well, gentlemen, there's your problem."

1. No energy = no revenue.

No **ENERGY** means... No **PRODUCTION**... and no **REVENUE**.

End of story.



2. Energy is never in "neutral."



FUEL & PRESSURE, & MOTIVE POWER

TRANSFORMATION
OF INPUTS INTO
FINAL PRODUCTS

WEALTH CREATED

HEAT, FRICTION, &
CHEMICAL REACTIONS
DESTROY PLANT & EQUIPMENT,
CREATE LIABILITIES

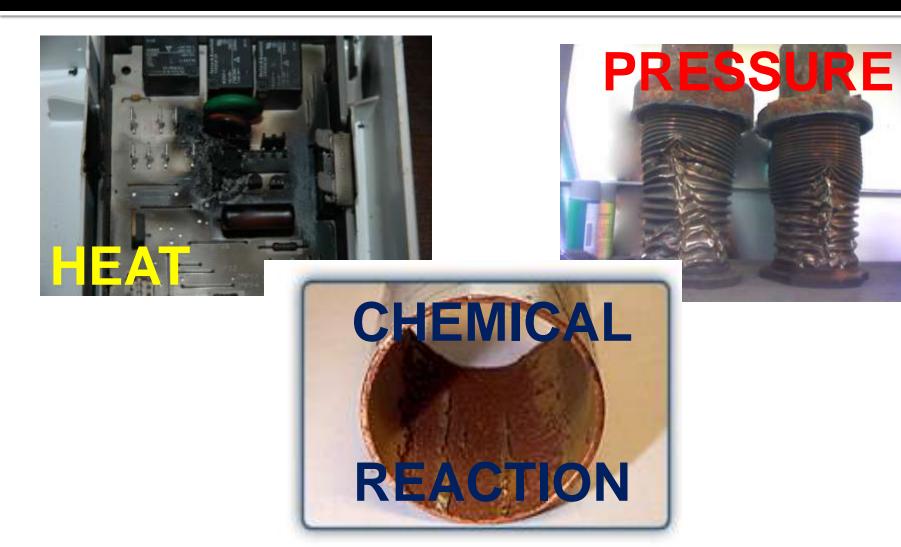
WEALTH DESTROYED

FUGITIVE ENERGY

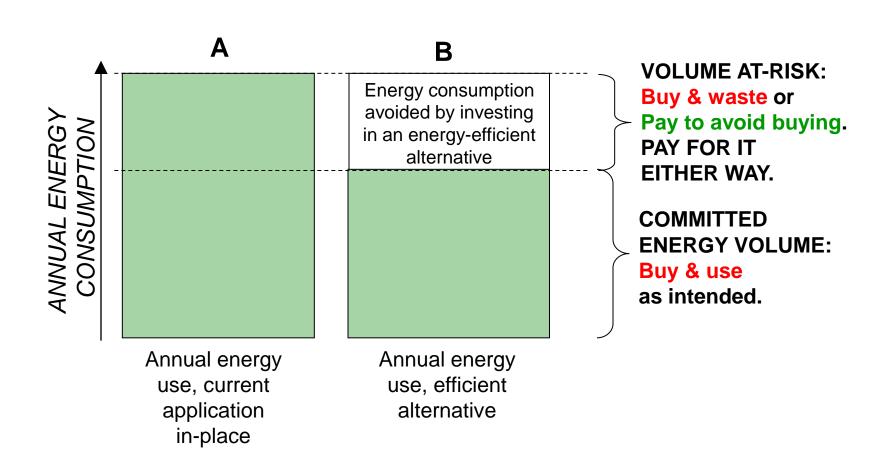
ENERGY IS ALWAYS WORKING.

Energy that doesn't create wealth destroys it.

3. Energy waste destroys capital.



4. You cannot "walk away" from an energy efficiency investment



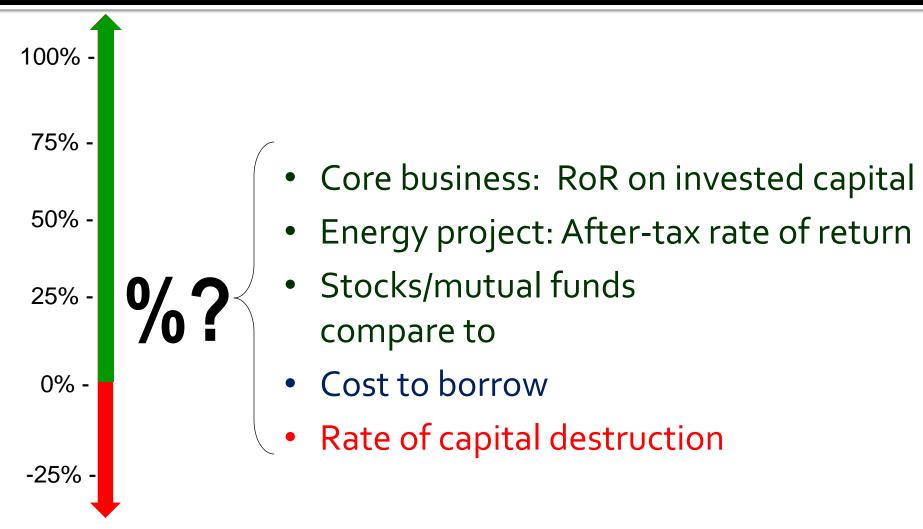
5. Energy choices can future-proof your cash flow for years to come.

RISK or OPPORTUNITY?

- Energy price volatility
- Smart grid technologies
- Evolving emissions & safety standards
- Green & sustainable market bona fides



6. Hard to find a better low-risk cash flow than energy improvements.



7. Your facility is like an ATM machine ready to dispense cash.

- Pay for waste?
- Finance working capital
- Subsidize CAPEX



How do you....



...measure mutual fund performance?

Simple payback?

Monetize Your Energy Position

The naïve measure:

PROJECT COST: \$1,000,000

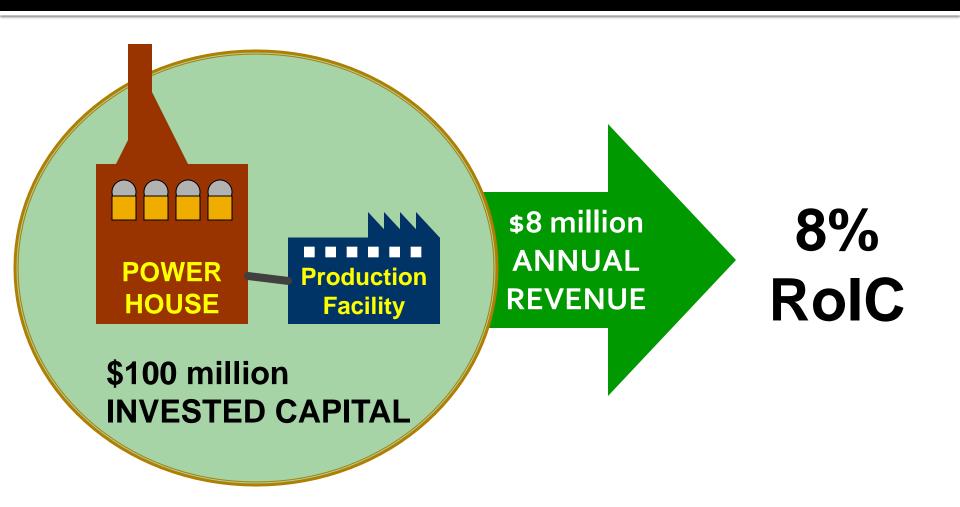
AMT FINANCED: \$500,000/8%/25YRS

MARGINAL INCOME TAX: 35%

ECONOMIC LIFE: 25 YRS

SIMPLE PAYBACK: 4 YRS pre tax 8 YRS post tax

EXAMPLE:Return on Invested Capital



50% -

Ex: 8-YR SPB AFTER TAXES

40% -

TWO-YEAR PAYBACK = 50%

30% -

ENERGY PROPOSAL IRR = 25% BEFORE TAXES

20% -

ENERGY PROPOSAL IRR = 12% AFTER TAXES & FINANCE

10% -

CURRENT RATE OF RETURN ON INVESTED CAPITAL = 8%

0% -

COST TO BORROW = 4%
MUTUAL FUNDS = 3%

-10% -

IRR = -12.6% REJECT PROJECT, NEGATIVE CASH FLOW

Coming Soon from the Maryland Energy Administration



MONETIZEKey Energy Assets

- Payback, ROI
- Costs, Incentives
- Savings
- Unit price to save vs. price to buy energy
- Second price tag capital equivalent of waste
- Cost of doing nothing
- Cash flow and rates of return

What's YOUR Vision?







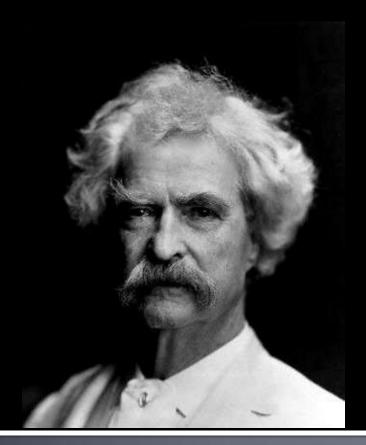
YOUR VOICE, YOUR POLICY

Study of Manufacturing Investment Decision-Making Telephone survey of Stakeholders, ~ 30 minutes

Describe the corporate investment decision process SHAPE THE NEXT ROUND OF ENERGY OUTREACH & ASSISTANCE PROGRAMS

Report due Oct 2012

PLEASE REPLY: crussell@aceee.org



"I'm all for progress. It's change I object to."

--Mark Twain 1835-1910 American humorist



THANKYOU

Christopher Russell **Energy Path FIMDER**

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